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EXAMINER	
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ART UNIT	PAPER NUMBER
2169	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/813,573	HARIK ET AL.	
	Examiner	Art Unit	
	Jacob F. Bétit	2169	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,8,10,12,14,17-20 and 22-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,8,10,12,14,17-20 and 22-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on 10 November 2008, claims 1, 3, 10, 12, 14, 17, 19, 22, 23, and 25 are amended and claims 6, 9, 11, 13, 15, 16, and 21 are cancelled per applicant's request. Claims 1-5, 7, 8, 10, 12, 14, 17-20, and 22-28 are presently pending in the application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-5, 7, 8, 12, 14, 17-20, and 25-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a process that is not tied to another statutory class and does not transform the underlying subject matter to a different state or thing. See Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

4. Claim 10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In paragraph 0032 of the specification the applicant has provided evidence that the applicant intends the means to be software. Software is not one of the four categories of invention and therefore this claim is not statutory. Software is not a series of steps or acts and thus is not a process. Software is not a physical article or object and as such is not a

machine or manufacture. Software is not a combination of substances and therefor not a composition of matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-5, 7, 10, 12, 14, 17-20, and 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al., "Context Query in Information Retrieval" in view of Pant et al. (U.S. patent No. 6,012,053).

As to claim 1, Chi et al. teaches method comprising:

identifying an implicitly defined semantic structure in a document, where a plurality of rules are associated with the implicitly defined semantic structure, and where the semantic structure includes a list having a header and a plurality of items associated with the header (see section 4, first paragraph; rule 1; rule 5; and rule 6);

determining a location of a first term and a location of a second term within the list (see section 3, first 11 lines);

selecting one of the plurality of rules based on a relationship of the locations of the first and second terms within the implicitly defined semantic structure (see section 4, first paragraph),

where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items (see section 4, rule 1), and

where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items (see section 4, rules 5 and 6).

Chi et al. does not distinctly disclose a) where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items; b) determining a distance value between the first and second terms using the selected rule; and c) outputting the distance value to rank the document for relevancy to a search query that includes the first term and the second term.

Pant et al. teaches a) see column 2, lines 4-24 and see 12, lines 33-50; b) see column 2, lines 4-24, "distance between terms in an item"; and c) see column 2, lines 25-43 and column 3, lines 56-63, "outputs scores". Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Chi et al. to include the teachings of Pant et al. because these teachings would enable search results to be ordered in a manner that is preferable to the user (see Pant et al., column 1, line 65 through column 2, line 3).

As to claim 2, Chi et al. as modified, teaches the document being an HTML (Hyper-Text Markup Language) document (see section 2, third paragraph).

As to claim 3, Chi et al. as modified, teaches wherein the list is created with HTML tags (see section 2, third paragraph).

As to claim 4, Chi et al. as modified, teaches wherein the HTML tags include paragraph tags, new line tags, bold tags, or table tags (see section 4, rule 1, rule 5, and rule 6).

As to claim 5, Chi et al. as modified, teaches further comprising: locating explicitly defined semantic structures (see section 4, rule 6).

As to claim 7, Chi et al. as modified, teaches the distance value being calculated as a word count between the first and second terms in the document augmented by ones of the rules related to the implicitly defined semantic structure (see Pant et al., column 12, lines 33-50).

As to claim 10, Chi et al. teaches a device comprising:

means for identifying an implicitly defined semantic structure associated with terms in a document, where a number of rules are associated with the implicitly defined semantic structure, and where the semantic structure includes a list including a header and a plurality of items associated with the header (see section 4, first paragraph; rule 1; rule 5; and rule 6);

means for determining a location relationship between a pair of the terms within the list (see section 3, first 11 lines);

means for determining which one of the number of rules corresponds to the location relationship (see section 4, first paragraph);

where a second rule of the number of rules, different than the first rule, is determined to correspond to the location relationship when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items (see section 4, rule 1); and

where a third rule of the number of rules, different than the first rule and the second rule, is determined to correspond to the location relationship when the first term is located in the header and the second term is located in one of the plurality of items (see section 4, rules 5 and 6).

Chi et al. does not distinctly disclose a) where a first rule of the number of rules is determined to correspond to the location relationship when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items; b) means for determining a distance value between the pair of terms based on the one rule; and c) means for generating a ranking score for the document based on the distance value; and means for outputting the ranking score.

Pant et al. teaches a) see column 2, lines 4-24 and see 12, lines 33-50; b) see column 2, lines 4-24, "distance between terms in an item"; and c) see column 2, lines 25-43 and column 3, lines 56-63, "outputs scores". Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Chi et al. to include the teachings of Pant et al. because these teachings would enable search results to be ordered in a manner that is preferable to the user (see Pant et al., column 1, line 65 through column 2, line 3).

As to claim 12, Chi et al. teaches a method comprising:

identifying a semantic structure associated with terms in a plurality of documents, where a number of rules are associated with the semantic structure, and where the semantic structure includes a list including a header and a plurality of items associated with the header (see section 4, first paragraph; rule 1; rule 5; and rule 6);

locating a first term and a second term occurring within the list (see section 3, first 11 lines);

selecting, based on a relationship of the locations of the first and second terms, at least one of the number of rules to be used in determining a distance value between the first and second terms (see section 4, first paragraph);

where a second rule of the number of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items (see section 4, rule 1), and

where a third rule of the number of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items (see section 4, rules 5 and 6).

Chi et al. does not distinctly disclose a) where a first rule of the number of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items; b) determining, using the at least one rule, the distance value between the first and second terms within the semantic structure when the first and second terms occur in a search query; and c) ranking the documents for relevancy to the search query based on the determined distance value; and outputting the rankings of the documents in response to the search query.

Pant et al. teaches a) see column 2, lines 4-24 and see 12, lines 33-50; b) see column 2, lines 4-24, "distance between terms in an item"; and c) see column 2, lines 25-43 and column 3, lines 56-63, "outputs scores". Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Chi et al. to include the teachings of Pant et al. because these teachings would enable search results to be ordered in a manner that is preferable to the user (see Pant et al., column 1, line 65 through column 2, line 3).

As to claim 14, Chi et al. as modified, teaches wherein the semantic structure is implicitly defined (see section 4, rule 1 and rule 5).

As to claim 17, Chi et al. as modified, teaches wherein the semantic structure is identified prior to the ranking (see section 2, third paragraph).

As to claim 18, the applicant is directed to claim 2 above.

As to claim 19, the applicant is directed to claim 3 above.

As to claim 20, the applicant is directed to claim 4 above.

As to claim 22, Chi et al. teaches device comprising:

a memory; and a processor coupled to the memory (see Abstract, "search engine" is run on a computer) to:

identify a semantic structure associated with a first term and a second term occurring in a document, where a plurality of rules are associated with the semantic structure, and where the

semantic structure includes a list having a header and a plurality of items associated with the header(see section 4, first paragraph; rule 1; rule 5; and rule 6);

determine a semantically based distance relationship that exist between the first term and the second term in the identified semantic structure (see section 3, first 11 lines);

select one of the plurality of rules that corresponds to each of the distance relationships (see section 4, first paragraph);

where the processor is configured to select a second rule of the plurality of rules, different than the first rule, when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items (see section 4, rule 1), and

where the processor is configured to select a third rule of the plurality of rules, different than the first rule and the second rule, when the first term is located in the header and the second term is located in one of the plurality of items (see section 4, rules 5 and 6).

Chi et al. does not distinctly disclose a) where the processor is configured to select a first rule of the plurality of rules when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items; b) determine, using the selected rule, the semantically based distance value between the first term and the second term, where the first term and the second term occur in a search query; and c) rank the document for relevancy to the search query based on the semantically based distance value; and provide at least some of the ranks in response to the search query.

Pant et al. teaches a) see column 2, lines 4-24 and see 12, lines 33-50; b) see column 2, lines 4-24, "distance between terms in an item"; and c) see column 2, lines 25-43 and column 3, lines 56-63, "outputs scores". Therefore, it would have been obvious to one having ordinary skill

in the art at the time of the invention to have modified Chi et al. to include the teachings of Pant et al. because these teachings would enable search results to be ordered in a manner that is preferable to the user (see Pant et al., column 1, line 65 through column 2, line 3).

As to claim 23, Chi et al. as modified, teaches the processor being further configured to: locate implicitly defined semantic structures in the document; and use the implicitly defined semantic structures in determining the semantically based distance value (see section 4, rules 1 and 5).

As to claim 24, Chi et al. as modified, teaches the processor being further configured to: receive the search query (see section 3, first 11 lines).

As to claim 25, Chi et al. teaches method comprising:

receiving a search query; identifying an implicitly defined semantic structure associated with terms in documents, where a plurality of rules are associated with the implicitly defined semantic structure, and where the semantic structure includes a list having a header and a plurality of items associated with the header (see section 4, first paragraph; rule 1; rule 5; and rule 6);

determining a semantic based distance between a first term and a second term within the list (see section 3, first 11 lines);

selecting one of the plurality of rules based on the semantic based distance between the first and second terms within the implicitly defined semantic structure (see section 4, first paragraph);

where a second rule of the plurality of rules, different than the first rule, is selected when the first term is located in one of the plurality of items and the second term is located in the same one of the plurality of items (see section 4, rule 1), and

where a third rule of the plurality of rules, different than the first rule and the second rule, is selected when the first term is located in the header and the second term is located in one of the plurality of items (see section 4, rules 5 and 6);

Chi et al. does not distinctly disclose a) where a first rule of the plurality of rules is selected when the first term is located in one of the plurality of items and the second term is located in a different one of the plurality of items; b) determining, using the selected rule, a distance value for the first and second terms; and c) ranking the documents for relevancy to the search query based on the distance value; and presenting the documents in an order influenced by the ranking.

Pant et al. teaches a) see column 2, lines 4-24 and see 12, lines 33-50; b) see column 2, lines 4-24, "distance between terms in an item"; and c) see column 2, lines 25-43 and column 3, lines 56-63, "outputs scores". Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to have modified Chi et al. to include the teachings of Pant et al. because these teachings would enable search results to be ordered in a manner that is preferable to the user (see Pant et al., column 1, line 65 through column 2, line 3).

As to claim 26, the applicant is directed to claim 2 above.

As to claim 27, the applicant is directed to claim 3 above.

As to claim 28, the applicant is directed to claim 5 above.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chi et al., "Context Query in Information Retrieval" in view of Pant et al. (U.S. patent No. 6,012,053) and in further view of Mukherjee, "Automatic Discovery of Semantic Structures in HTML Documents".

As to claim 8, Chi et al. as modified, does not expressly disclose "locating repeating occurrences of a set of two or more text formatting commands." However this feature is taught by Makherjee in the section labeled our approach. Thus, it would have been obvious to one of ordinary skill in the art to use the teachings of Makherjee in the invention as it would locate contexts that would not have been found in the system of Chi and thus make the results more accurate.

Response to Arguments

8. Applicant's arguments with respect to claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Bétit whose telephone number is (571) 272-4075. The examiner can normally be reached on Monday through Friday 10:30 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Jacob F Bétit/
Examiner, Art Unit 2169

jfb
30 Jan 2009